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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,927	04/16/2004	Richard Eugene Crandall	18602-08059/US	1026

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APPLE/FENWICK
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EXAMINER	
TRAN, PHUOC	
ART UNIT	PAPER NUMBER
2624	

MAIL DATE	DELIVERY MODE
03/04/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/826,927	CRANDALL ET AL.	
	Examiner	Art Unit	
	Phuoc Tran	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 February 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) *3,6,10,13,17 and 20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,5,7,8,11,14-16,18,19 and 21-30* is/are rejected.

7)☒ Claim(s) *9 and 12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/13/09 has been entered.

2. Applicants' arguments filed 2/11/08 have been fully considered but they are not persuasive.

Applicants argue that claims 1, 4, 7, 8, 11, 14, 15, 18, 21-30 are statutory because the claimed invention transforms data to a different state or thing and stores compressed data on a computer- readable storage medium.

In response, the transformation of "data" in the claimed invention is not qualified as transformation a particular article to a different state or thing because the "stream of data" does not represent any physical object or substance. In re Bilski, 88 USPQ2d 1385 (Fed. Cir. 2008). storing compressed data on a computer- readable storage medium is considered as insignificant post-solution activity which does not make the claimed invention statutory under 35 U.S.C. 101. The claimed invention simply applies mathematical functions to abstract digital values (i.e., data) and produces other abstract digital values (i.e., the compressed data). The end result in the claimed invention is abstract **"compressed data"**.

The end product of the claimed invention is simply a set of abstract digital data which is stored a computer- readable storage medium.

If the end product of a claimed invention is a pure number...the invention is nonstatutory regardless of any post-solution activity which makes it available for use by a person or machine for other purposes. In re Walter, 205 USPQ at 407 (CCPA 1980).

See Gottschalk v. Benson, 175 USPQ 673 (S. Ct. 1972).

> It is conceded that one may not patent an idea. But is practical effect that would be the result if the formula... were patented in this case. The mathematical formula involved here has no substantial practical application except in connection with a digital computer, which means that if the judgment below is affirmed, the patent would totally preempt the mathematical formula and in practical effect would be a patent of the algorithm itself.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 15, 16, 18, 19, 28-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 recites "a dynamic predictor", "an adaptive Golomb engine" without structural limitations. Therefore, it is unclear what structures of the "dynamic predictor" and "adaptive Golomb engine" accomplish the recited functions of the dynamic predictor" and "adaptive Golomb engine".

Claim 19 recites the limitations "the first domain" in line 1 and "the second domain" in line 2. There is insufficient antecedent basis for each of these limitations in the claim.

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1, 2, 4-5, 7, 8, 11, 14, 15, 18, 21-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1, 4, 7, 8, 11, 14, 15, 18, 21-30 recite the mere manipulation of data or an abstract idea, or merely solve a mathematical problem without a limitation to a practical application. Claims 1, 4, 7, 8, 11, 14, 15, 18, 21-30 merely manipulate data without ever producing a useful, concrete and tangible result. The claimed invention simply applies mathematical functions to abstract digital values (i.e., data) and produces other abstract digital values (i.e., the compressed data).

Claims 1, 2, 4-5, 7 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. The Federal Circuit[1], relying upon Supreme Court precedent[2], has indicated that a statutory "process" under 35 U.S.C. 101 must (1) be tied to a particular machine or apparatus, or (2) transform a particular article to a different state or thing. This is referred to as the "machine or transformation test", whereby the recitation of a particular machine or transformation of an article must impose meaningful limits on the claim's scope to impart patent-eligibility (See *Benson*, 409 U.S. at 71-72), and the involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity (See *Flook*, 437 U.S. at 590"). While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform an article nor are positively tied to a particular machine that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For example, the steps of "applying a dynamic prediction function" and "applying a Golomb coding function" in claims 1, 2, 4-5, 7 neither require particular machine or apparatus, nor (2)

[1] *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

[2] *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

transform a particular article to a different state or thing. The steps of "transforming the data from a first domain to a second domain prior to applying the dynamic prediction function", "storing outputting the second compressed stream of data to a computer- readable storage medium" are considered as insignificant activities which do not make the claimed invention statutory under 35 U.S.C. 101.

7. Claims 9, 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuoc Tran whose telephone number is (571) 272-7399. The examiner can normally be reached on MON-FRI.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh M. Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Phuoc Tran/
Primary Examiner, Art Unit 2624